

IT Boils Down to Humans



Lessons Learned from Good
Process Improvement Attempts
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CIBIT strengthening DNV

- Some reflections on process improvement
- Some open doors...
- A bird's-eye view on improvement programmes
 - Four cases
- A framework for understanding
- Conclusions

Some Reflections on Process Improvement

- Strategic plans, tactical plans
- SEPG, Champs, ...

But

- “We have too much documentation”
- “Now that we have the right (approved) set of procedures, the only thing we need to do is implement them”
- “Do we have CMMI-champs?”
- Assessments as final destination

Some Reflections on Process Improvement – 2

MANAGING RISK



- These process improvement attempts really all made sense
 - Most important aspects were tackled, in a way
 - Neither the availability of resources and/or money were problems
 - In all cases, the improvement programme was designed and monitored by strong project management
- Yet, success varies
 - Why?

- Consulting and education in requirements engineering, architecture, testing
- Process assessments and improvement support at
 - AEGON, AtosOrigin, Essent, IB-Groep, ING DIRECT USA, ING DiBa, KPN, ING Group, Rabobank Groep (De Lage Landen, Interpolis, Rabobank Nederland, Rabobank International), RIPE/NCC, ...

Some Open Doors...

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- No uniform approach towards process improvement exists nor it should
- Every organization is unique, the organization's drivers are unique
 - A tailored approach towards process improvement is required
- The experienced amount of tailoring is limited, though

A Bird's Eye View on Improvement Programmes

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- We characterize four improvement programmes experienced in the last two years
 - Context
 - Driver, desired outcome
 - Observations
- We use this information to construct a framework to compare the organizations

■ Context

- Large insurance organization
- Application management (AM) done in several teams
- Intended organization-wide standard in place in process infrastructure

■ Drivers and desired outcome

- Process improvement and standardization to overcome problems currently experienced
- A clear goal: reach maturity level two early 2007

■ Observations

- Strong focus on procedural descriptions, policies, and templates
“the quality system is leading!”
- New versions of quality system were periodically released
- Clear targets at 3rd and 4th level management
- Heavily centralized tooling (and department) for registering incidents, problems, and changes
- Process Improvement Coach appointed (part of organization-wide SQA team) for the complete department (‘open door’-principle)

■ Observations (cntd.)

- Improvement loop:
 - Procedure enhancement requests can be issued throughout the organization
 - Quality Assurance reviews: Implemented process reviews foster improvement points
 - Follow-up of improvement points is done using tracking lists and periodic discussions at 2nd and 3rd level management
 - Focus on implementation by continuous management effort, news letters, trainings, and formal reviews
- Agreed assessments/appraisals
 - Capability determination, follow-up actions, and formal verification

■ Context

- A large bank with a recently centralized maintenance department within the ICT division
- Customer interaction mainly through a different department

■ Drivers and desired outcome:

- Uniformity in processes desired because of centralization
- Reach level two of the IT Service CMM at the end of 2006

■ Observations

- Blueprint-approach including long definition phase: develop process assets that fulfill the stated requirements (including periodic reviews during this design phase)
- Project communication started late

■ Observations (cntd.)

- New process metrics were not implemented
- Only very late a complete shift in focus on implementation: newsletters, *games*, expert team (80% - 20%, the other way)
- Significant effort was needed (and produced) during implementation phase

■ Context

- Large IT service provider
- Standardized software factory, supported by numerous process assets
- Following a standardized development approach, but working for different customers
- Geographical spread

■ Drivers, desired outcome

- Vendor advantage, selling-point
- CMMI level three in mid 2007

■ Observations

- All procedures, templates available on intranet, posters available
- Adapted and added procedures to comply with the CMMI
- Collecting metrics through central office
- Quality Assurance reviews
- Different kinds of training frequently provided

■ Observations (cntd.)

- Clear dashboards, focusing on costs
- Customers' requirements automatically lead to deviations from the standard processes (is this wrong?)
 - Leads to deviations from, and ignorance of process assets
- Visibility of CMMI-champs could be improved
- Blueprint approach, but at points (Resource Management) pilot-wise implementation. Result: the assessment came to early
- Good communication infrastructure
- Lack of implementation focus during the project
- Strong shift needed, and performed

- Context
 - IT organization of a large energy firm
- Drivers, desired outcome
 - An improved requirements engineering process
 - Improved collaboration between different roles (and departments)
- Observations
 - Manage, cash success and spread the word early: it will influence other processes positively: people want to join in
 - Acknowledge the criticism, muttering, and NIH: things won't go 100% well from the start: obtain feedback on where improvement is visible
 - Tools are of secondary importance: it is about collaboration and having the guts to collaborate

A framework for understanding

- Goal of this framework: identify relevant factors with respect to process improvement

- People and management
 - Skills and motivation
 - Leadership

- Improvement infrastructure
 - Process infrastructure
 - Support infrastructure (cvs, svn, requirement / incident / bug / change - registration and workflow)

- External driver
 - Sense of urgency

- Improvement approach
 - Blue-print (a.k.a. big-bang)
 - Blue-print definition, iterative implementation
 - Iterative definition and implementation
 - Continuous coaching

Organizations mapped onto this framework

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Element	Organization A	Organization B	Organization C	Organization D
People, management				
Improvement infrastructure				
External driver				
Improvement approach				

- Process improvement programmes should have a clear focus towards implementation and people
- The H-factor is not completely forgotten in these improvement programmes. Yet, it is sometimes disregarded
 - In these cases, always problems occur
- It is about people, and management capabilities to cash improvement programmes
 - Improvement programmes should provide ROI in early phases!

Thank you! Any questions?



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